

KDOT Epoxy Dispenser System Requirements

The proposed epoxy dispenser system will be used for various applications in the Kansas Department of Transportation's Research Unit. The applications will include, but not be limited to: injection and anchoring.

The epoxy dispenser system shall include the following features as a minimum:

1. Capability to meter and mix two component resins
2. Capability to dispense Super Low Viscosity Resins (less than 100 cps)
3. Designed for construction applications and outdoor use
4. Easy to transport (41 lbs. max) and simple to set-up and operate
5. CE certification
6. Dispensing pressure range of 12 to 700 psi
7. Maximum dispense rate of 17 gal/hr with a dispense volume of 3.2 ounces per cycle at a 1:1 ratio
8. Air pressurized filling of the material metering cylinders from two gallon pressure supply vessels
9. Standard dispense ratios from 1:1 to 5:1 with custom ratios up to 18:1
10. Minimal compressed air consumption (2.5 – 5.0 cfm) and pressure requirements
11. Metering ratio error of less than 1% regardless of differences in viscosity between the resin components
12. Wet seals shall be impervious to the chemistry of construction adhesives and their solvents (UHMW Polyethylene or approved equal)
13. Valve sequencing device to eliminate inlet/outlet valve overlap
14. Device to assure and confirm that both metering cylinders have filled completely prior to each cycle and prevent operation if not filled
15. Method to quickly change the dispense ratio
16. Dispenser operation controlled by a single regulator
17. Cycle counter as standard equipment
18. Sight gauge to track the motion of the dispenser to determine if the unit is stalled
19. Comprehensive and explicit Operation and Service Manual

Include unit pricing for the following items with all proposals:

1. Epoxy Dispenser System
2. Resin transfer Pressure Vessel assembly-two gallon – 2 each
3. Purge Tank Assembly for purging resin from mixers, hoses, etc.
4. Hand truck to transport the dispenser, transfer vessels and purge assembly as a unit
5. Nylon tubing rated at 1000psi at 72°F
6. Resin control on-off valves
7. Disposable mixers
8. Reusable connectors (connect-it)
9. Standard dispense ratio metering kit
10. Custom dispense ratio metering kit